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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,709	10/30/2003	Mike Cogdill	200207751-1	1938
22879	7590	09/30/2005	EXAMINER DINH, SON T	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			ART UNIT 2824	PAPER NUMBER

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/698,709	COGDILL ET AL. 
	Examiner Son T. Dinh	Art Unit 2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-33 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 12-22 is/are allowed.  
 6) Claim(s) 1-11 and 23-33 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 18 December 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: East search history.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 9-10, 23-29, 31-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Fahmy et al (US 2005/0068800A1).

With respect to claim 1, figure 1 of Fahmy et al disclose a memory device comprising an interface (110) for input and output data, a plurality of memory units (120) configured in two rows (each one is a row, and each SDRAM 120 has a plurality of memory units arranged in row and column) and a transmission line (130) coupling the plurality of memory units (120) to the interface (110).

With respect to claim 2, the lower transmission line that connects to the lower SDRAM 120 would be considered as a second transmission line.

With respect to claims 3 -6, the length of the upper and lower transmission line 130 that connected to 120 clearly equal and symmetrical and balance as shown in figure 1.

With respect to claim 7, element 140 is clearly an impedance, which is a resistor.

With respect to claims 9-10, the memory modules of Fahmy et al are dual line and the memory units are SDRAM as shown in figure 1.

With respect to claim 23, the step receiving data into an interface is performed by the interface 110, the step of storing data is performed by the SDRAM 120 and a transmission line is clearly shown in Fahmy et al as explained in the rejection applied to claim 1 above.

With respect to claim 24-29 and 31-32, the applicant is referred to the rejection applied to claim 2-7 and 9-10 for the reasons of this rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 11, 30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fahmy et al .

Fahmy et al applied as above. The only difference between Fahmy et al and claims 8, 11, 30 and 33 is that Fahmy et al is silent on the selection of the resistor being 22 ohms and the length of transmission line being one inch. However, it would have been an obvious matter of design choice bounded by well known memory device operation to choose these particular value of the resistor and the length of the transmission line because the applicant has not disclosed that the particular value are

for a particular unobvious purpose, produce an expected result. Indeed, it has been held that mere dimensional limitation are *prima facie* absent a disclosure that the limitation are for a particular unobvious purpose, produce an unexpected result, or otherwise critical. See, for example *In re Rose*, 220F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F 2d 1048, USPQ 143 (CCPA 1976).

***Allowable Subject Matter***

Claims 12-22 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fail to teach or suggest a double- high memory module system compatible with the termination schemes for single- high memory systems as disclose in claim 12.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Hirai et al disclose a memory device having an interface.

-Derenoff et al disclose a memory device comprising a connector.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Dinh whose telephone number is 571-272-1868. The examiner can normally be reached on Monday to Friday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on 571-272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Dinh  
September 29, 2005



Son T. Dinh  
Primary Examiner